UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,850	07/10/2003	Anne Gabriel	Q76275	9991

23373 7590 05/12/2009

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
ELCENKO, ERIC J	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
05/12/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/615,850	GABRIEL ET AL.	
	Examiner	Art Unit	
	ERIC ELCENKO	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *39* is/are allowed.

6)☒ Claim(s) *1 and 3-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments have been fully considered but they are not persuasive.

In regard to Claims 1 and 4, the applicant argues Anderson does not teach dynamically adapting at least one of the parameters of the CAC. The examiner respectfully disagrees for the following reasons:

Anderson discloses a connection admission control algorithm as stated by the applicant. The CAC perform admission control for all classes of packet service so that circuit creation on physical ports can be based upon established QoS objectives, that a traffic model can accurately portray the conditions present on the connection to optimize network resources. A request for a virtual path connection or channel connection includes a QoS and other traffic parameters that characterize the connection. The CAC computes various values for a circuit based upon traffic parameters requested. CAC algorithms may be customized to permit custom allocations of bandwidth to meet QoS or traffic levels. This is directly read upon as dynamically adjusting a parameter of the CAC algorithm. The parameters may be changed based on current data to optimize the network resources and give the most efficient connection available. Therefore, Anderson teaches providing a CAC algorithm in which parameters are dynamically changed based on QoS and traffic levels present in the system. (Col 15, Ln 45-67, Col 16, Ln 1-44)

In regard to Claims 8 and 9, Anderson teaches traffic parameters that are included in the CAC algorithm include various measurements including a peak rate. This reads directly on a maximum load to the connection as a peak rate is the highest

rate the system can attain. Anderson also teaches equivalent bandwidth as part of the adjustments and calculations made by the CAC in regard to optimizing the system. This is the same terminology and use of equivalent bandwidth as presented in the claimed subject matter. (Col 16, Ln 1-7, 23-25)

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-10, 13-15, 17-27, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson, Sr. (U.S. Pat. No. 6,522,629)

Anderson teaches a method of implementing an admission control algorithm in a telecommunications system, (*Col 5, Ln 49-52)* the method comprising:

dynamically adapting at least one parameter of said algorithm as a function of a traffic model representative of traffic present, (*Traffic loading tables are based on real-time empirical data that are continuously updated with traffic loading data acquired from real time operation. The data computations are employed in connection with models the manager uses and computes traffic loading information, Col 12, Ln 3-14; Col 14, Ln 35-64)*

wherein said traffic model includes one or more parameters representative of at least one type of traffic present. *(Traffic parameters include peak cell rate, average cell rate, cell delay variation, and the network bandwidth that is required by the connection. A bandwidth measurement can be a determining factor to a type of traffic present by classifications of size and message type which require certain bandwidths Col 16, Ln 4-7.)*

In regard to Claim 3, 5-10 Anderson teaches the parameters are representative of the at least one type of traffic include parameters include parameters representative of quality of service requirements for the at least one type of traffic. *(Traffic parameters include peak cell rate, average cell rate, cell delay variation, and the network bandwidth that is required by the connection. A bandwidth measurement can be a determining factor to a type of traffic present by classifications of size and message type which require certain bandwidths Col 16, Ln 4-7.)*

In regard to Claim 4, Anderson teaches a method of implementing an admission control algorithm in a telecommunications system, *(Col 5, Ln 49-52)* the method comprising:

dynamically adapting at least one parameter of said algorithm as a function of a traffic model representative of traffic present, *(Traffic loading tables are based on real-time empirical data that are continuously updated with traffic loading data acquired from real time operation. The data computations are employed in connection with models the manager uses and computes traffic loading information, Col 12, Ln 3-14)*

wherein said traffic model includes one or more parameters representative of at least one type of traffic present. *(Traffic parameters include peak cell rate, average cell rate, cell delay variation, and the network bandwidth that is required by the connection. A bandwidth measurement can be a determining factor to a type of traffic present by classifications of size and message type which require certain bandwidths Col 16, Ln 4-7.)*

wherein parameters representative of quality of service requirements include a maximum transmission time-delay and a probability that the transmission time-delay will be greater than that maximum transmission time-delay. (*the QoS parameters including acceptable end-to-end delay requirements which is read upon as the system having a maximum transmission time-delay, the acceptable end-to-end delay being the probability of the time-delay being over the maximum into unacceptable levels. Col 16, Ln 23-65)*

In regard to Claims 13-15, Anderson teaches traffic loading tables are based on real-time empirical data that are continuously updated with traffic loading data acquired from real time operation. The data computations are employed in connection with models the manager uses and computes traffic loading information, Col 12, Ln 3-14)

In regard to Claim 17-27 and 38, the traffic manager drives the signaling manager, per traffic control rules and information received from the provisioning manager, for controlling the dynamic loading of the network on a real time basis. Under traffic manager control, the signaling manager provides real time live interaction between the narrowband equipment and the broadband equipment, monitoring each

transaction moving through the network and verifying that routes are available, verifying that appropriate routing decisions are being made, and verifying that the network resources and bandwidth circuits are available. The traffic manager establishes the rules based on empirical real time statistical algorithms for loading the network routers and switches with a knowledge-based intelligent modeler over the transport layers for optimum performance and maximum network efficiency. The traffic manager enforces these operations with a set of business rules based on QoS requirements which determines how traffic is to be loaded on a dynamic, real time basis. traffic loading tables are based on real-time empirical data that are continuously updated with traffic loading data acquired from real time operation. The data computations are employed in connection with models the manager uses and computes traffic loading information. (Col 12, Ln 3-14)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Sr. (U.S. Pat. No. 6,522,629) in view of Kola et al. (U.S. Pub. No. 2004/0213165)

Anderson does not disclose determining a best model for use.

Kola et al. discloses the model generator illustrated in FIG. 2 further comprises a traffic analyzer TA for analyzing characteristics of the traffic, and a model builder MB for building the port number specific statistical models based on the analyzed characteristics of the traffic. The model generator illustrated in FIG. 2 further comprises a general model builder GMB for building at least one general statistical model of the traffic. Said characteristics of the traffic comprise number and size of small packets at the start, number and size of small packets at the end, number and size of packet calls, inactivity period, and the presence of TCP slow start. The model is optimized as to be compared with having the "severest constraints." (Para 46)

It would have been obvious to one of ordinary skill in the art to modify Anderson to include a model builder as taught by Kola et al. in order to allow for a most efficient traffic model to be built when a standard model does not give the most accurate representation.

2. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Sr. (U.S. Pat. No. 6,522,629) in view of Bjoerkman et al. (U.S. Pub. 2005/0152272)

Anderson does not disclose a memory for storing relevant data.

Bjoerkman et al. discloses the processing section 12 has a processor 22 and a memory 23, which contains programs and data to enable the connection admission control of the present invention to be carried out.

It would have been obvious to one of ordinary skill in the art to modify Anderson to include a memory in order for quicker retrieval of information relating to a system without having to recalculate or re-measure all the pertinent information needed.

3. Claims 28-31, 33 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Sr. (U.S. Pat. No. 6,522,629) in view of Vilander et al. (U.S. Pub. No. 2004/0010609)

Anderson does not disclose an AAL2 connection on an ATM virtual circuit at an Iub, IU-CS, or Iur interface in a UTRAN.

In regard to Claims 28-31, Vilander et al discloses AAL2 is a standard defined by ITU recommendation 1.363.2. An AAL2 packet comprises a three-octet packet header, as well as a packet payload. The AAL2packet header includes an eight-bit channel identifier (CID), a six-bit length indicator (LI), a five bit User-to-User indicator (UUI), and five bits of header error control (HEC). The AAL2 packet payload, which carries user data, can vary from one to forty-five octets. An object of the present invention, in one aspect, is utilization of Internet Protocol in lieu of the ATM protocol in the user plane protocol stacks for various interfaces (e.g., Iu-CS Interface, Iur Interface, and Iub Interface) of a radio access network such as UTRAN, and in another aspect is provision of a new transport network layer protocol usable on these interfaces as well as on the Iu-PS Interface. (Para 14, 15)

It would have been obvious to one of ordinary skill in the art to modify Anderson to include the AAL2 connection and following interfaces in order to have the ability to carry more information on multiple interfaces where a new network layer can be used.

Anderson does not disclose a radio access element or for control at the interface of a CDMA system.

In regard to Claims 33 and 34, one example of a radio access network is the Universal Mobile Telecommunications (UMTS) Terrestrial Radio Access Network (UTRAN). The UTRAN is a third generation system, which is in some respects, builds upon the radio access technology known as Global System for Mobile communications (GSM) developed in Europe. UTRAN is essentially a wideband code division multiple access (W-CDMA) system. (Para 7)

I would have been obvious to one or ordinary skill in the art to modify Anderson to include the method in a radio access element and as part of a CDMA system in order to allow for more versatility in use with multiple systems.

Anderson does not disclose the method in a base station controller, RNC, or as part of a base station or a packet-switched network.

In regard to Claim 32 and 35-37, a telecommunications system has a protocol architecture over an interface between nodes of the telecommunications system, the protocol architecture including Internet Protocol as a protocol above a link layer protocol in a transport network layer. The protocol architecture can be used over one or more of several interfaces, including the interface between a radio access network and a core network [Iu Interface]; the interface between radio network controllers (RNCs) and the base stations (BSs) served thereby [Iub Interface]; and the interface between a Source RNC (SRNC) and a Drift RNC (DRNC) [Iub Interface]. A new XTP Protocol is proposed

as another aspect of the invention, which is usable in a protocol stack for the Iu-PS (packet switched) implementation as well as over the Iu-CS, Iub and Iur Interfaces. (Abs)

It would have been obvious to one of ordinary skill in the art to Anderson to include the method in base stations, a RNC, or a core network element in order to allow for more efficient use of the method across an entire system and not a single part giving more reliable and consistent results.

Allowable Subject Matter

Claim 39 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC ELCENKO whose telephone number is (571)272-8066. The examiner can normally be reached on M-F 7:30 AM through 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ee
/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2626